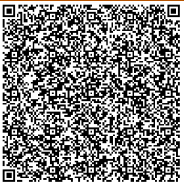

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The Role of Water as a Non Traditional Security Challenge

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Abstract

Challenges such as climate change, water and environment or even food security were not considered under the traditional security paradigm. In 1994, the UN Human Development report brought to the forefront the need to shift focus to the concept of people's security and identified several essentials including economic, health and environment security. Water, which lies at the core of these essentials did not find adequate prominence and while 'water wars' was under the subject of academic scrutiny, the concept of water security as a global challenge did not receive adequate attention. Currently, water and its inextricable relationship to energy, food and development, and political stability is placed at the core of every security debate. In 2015, leaders at the WEF in Davos ranked water as the No.1 risk to societies. The paper explores how a change in attitude is required from policy makers to the end user.

Keywords: Hydro-Political Risk; Transboundary Water Interactions; Hydro Diplomacy

1. Introduction

1.1. The Non Traditional Security Debate

According to Mely Caballero-Anthony (2007), non-traditional security threats may be defined as "challenges to the survival and well-being of peoples and states that arise primarily out of non-military sources, such as climate change, cross-border

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environmental degradation and resource depletion, infectious diseases, natural disasters, irregular migration, food shortages, people smuggling, drug trafficking, and other forms of trans-national crime." Caballero-Anthony's definition is probably one of the most succinct in the field of academics today, and lays out an important starting point for the study of non-traditional security and related threats. In recent years, the concept of Non-Traditional Security or NTS, threats and challenges have gained greater salience within both the academic and policy community. In a highly globalised environment, newer challenges and threats from unknown sources and actors are being thrown up every day, and the international community and systems of global governance are ill equipped to deal with them.

The traditional concept of security, largely confined to defence and military, is no longer applicable in a world where non state actors using age old methods of communication or threats from changes in the climate are some of the biggest challenges. The traditional use of hard power, where nation states were at the core of decision making, and armies of other countries were the biggest threat, is no longer the sole concern of policy makers. The playing field of the 20th Century, that saw two resource draining world wars, the end of empires as they were known, proxy wars that were fought with military might and numerous other inter-state wars has now changed (Nye & Welch, 2013). With renewed global governance structures in the post-cold war scenario, strengthening of the UN and its bodies, and the emergence of the US as a sole superpower had seen a decline in the number of military conflicts (Srikanth, 2014).

However, the 21st century, with growing populations and a race for resources, a shift towards more nationalistic style of governance, emergence of non-state actors, and the rise of the internet and alternate forms of terrorism has led to a scenario where threats to a nation state and its people are emerging from a number of different areas. Technological advances, which are moving at an unprecedented rate never before imagined even by the creators of new technologies, especially in the space of information and communication, have brought in new threats from faceless enemies hidden behind computers, shifting the battlefield to cyberspace.

The United Nations, primarily designed to deal with states, is shackled behind its own commendable rules and laws, as modern conflict is no longer only between nation states or empires that play with a defined set of rules.

In 1994, the UNDP had brought out a report on human security which placed the individual at the centre of security discourse. The end of the cold war, the disintegration of USSR, and the rise of the middle class has shifted the debate, where the traditional classic framework is no longer applicable. In 2004, UN Secretary General's convened a High Level Panel that identified a cluster of security issues which went beyond the traditional concept of security (United Nations, 2004). The high level panel drew attention to six clusters of non-traditional security issues including large scale human right abuses, genocide, poverty, infectious diseases and nuclear radiological, chemical and biological weapons, and transnational organised crime and so forth. Yet these clusters were still limited, and did not include newer challenges relevant in a 21st century society. The terrorist attacks of 2001 and the financial crisis of 2008 brought to the forefront a more contemporary set of challenges, including a wider definition of terrorism, financial instability as a security threat, piracy and maritime security, energy security, the question of justice and threats to a fundamental western ideal of democracy.

Some of these, especially the ideals of justice and democracy for example, were previously viewed under the lens of soft power, but with the blurring of lines between hard and soft power, a clear cut definition is all the more challenging. By focusing on whether a given issue represents an existential threat, newly emerging concepts of securitisation theory enables analysts to expand the field of security issues. However, one must be cautious in bringing in too many issues into the field of security, which will only serve to dilute their importance and render the job of policy makers all the more difficult. Speaking at the 14th Asian Security Conference in IDSA in February 2012, former National Security Adviser of India, Shiv Shankar Menon, cautioned that the concept of security had been made so large that it was "not helpful in understanding or prioritising among security challenges, and it is certainly no guide to the actions required to deal with such threats or good"(Menon,

2012). A new thinking is required, where nation states no longer view security in the same narrow format as before, but realise that security of the state, of ideals and of people transcends borders (Gupta, 2013).

Though there is no clear understanding of NTS, and what fits the prevue of the discourse, there is an understanding between the academic community, policy makers and the practitioners that the growing competition for resources due to population growth is probably one of the biggest challenges facing us today. Water finds itself at the centre of almost all these resources and in the coming years will be at the core of the security debate, both as a challenge for nations and a threat to nations. A closer look at Mely Caballero-Anthony's (2007) definition reveals that water, directly or indirectly, is at the core of present challenges, from energy and climate change to food and health security. Any discourse or policy decision to tackle traditional challenges to the growth of nations or new challenges like migration, refugees or natural disasters, will not be complete without a clear understanding of the water component in each sector. It is in the fundamental idea of water, what it comprises of, its uses, who owns it and who are its users, that we begin we realise that water security is one of the key challenges that transcends borders and thus requires a new bold thinking.

2. Why Water?

Moon (2008) had warned, "Water is a classic common property resource. No one really owns the problem and so no one really owns the solution". Around the world, there are some 276 major transboundary watersheds, crossing the territories of 148 countries and covering nearly half of the earth's land surface. More than 300 transboundary aquifers have been identified, most of which are located across two or more countries. With the current population growth rates, the projections for 2050 are 9 billion people to inhabit this planet, of which 3.5 billion, a conservative estimate, will live in water stressed areas. These include some of the more populated areas of East Africa, South Asia and South East Asia, further exacerbating the stress on resources. While the planet has 1.4 billion km3 of water, only 2.5% or 35 million km3 is fresh water. Of this

only 200,000 km3 is usable both by humans and to replenish and sustain ecological balance. With the rise in population and the unchecked exploitation of resources, water, land and air, the amount of water available will drastically reduce as time goes by.

Climate change, regarded as an unidentifiable threat in the long term, is now also being securitised, though the debate is still on. Changes in climate, which once seem localised, have begun to affect larger regions and multiple nations at once. The recent spate of floods in the Himalayas, with an increased frequency and ferocity over the last decade, are not only affecting Nepal, but India as well. With renewed interest in rebuilding and assisting Nepal, other countries step in, changing the economic relationship between Nepal and donors. The projected consequences of changes in the climate such as floods, droughts, sea rise, and extreme weather events are having serious security implications and need to be dealt with on a coordinated basis by more than one nation. The rise in temperatures, for example, will have a cascading affect, where there are likely to be more frequent cyclones and storms in tropical regions, harsher and longer droughts in dry zones and a slow melting of glaciers and polar ice caps (Vishwanath, 2015). This will eventually lead to the rise of sea level and the submerging of low lying areas and island nations, a phenomenon already being witnessed in parts of the India Ocean. Maldives is an obvious case in point. Rising temperatures also have the capacity to foster the spread of communicable diseases, such as malaria and cholera, due to increased number of air-borne and water-borne vector carriers.

One can imagine the consequences of a projected sea level rise of 3-5 metres affecting a populated city like Beirut, in a country that is already besieged by civil strife and refugees, surrounded by a war torn region. In 2011, almost 200,000 Somalis fled the country due to a sustained drought in the Horn of Africa coupled with major water insecurity, forcing neighbouring states to deal with an unexpected refugee crisis.

The "tragedy of the commons" has resulted in the overexploitation of natural resources without any heed for allowing for their replenishment, where water has been over exploited and over used for the self-interest of communities and nations. Unrestricted, the race for water is likely to become the number one security threat in

the coming years, both from a traditional viewpoint and from unexpected sources. There is growing literature on water and water wars, and nations are beginning to concern themselves on the relationship between water as a resource for other uses and water as an entity by itself, but to a very small extent, especially in the developing world. Restraint and control is much harder to achieve than deterrence and both developed states and developing nations are unwilling to let go of the race for power and economic success that they have achieved or aspire towards. However, while we may not be willing to accept the idea of water wars, a term often used out of context, the growing scarcity of water and the abuse of water in adverse situations by uncontrollable irrational actors with negative consequences to the larger population cannot and must not be ignored.

3. The Role of Water in the Security Debate

Water scarcity and the need for water security, along with emerging security challenges should be at the forefront of the security debate, not only within vulnerable states but also by the world's major economic and military powers. Transboundary water and shared resources cuts across all disciplines and sectors, from law, resource management, food, health, peace and stability, energy, human rights, integration and others. Currently about 2 billion people live amongst shared water bodies and river basins, where water is not only a community issues but a security challenge as well. In a classical traditional sense, water becomes a threat as virtue of being an important resource and also as collateral damage due to natural or manmade disasters. Increasingly however water is also being used both as tool to negotiate and stress power relations and also as a weapon by governments as well as non-state actors and terrorist organizations (Hartley, Tortajada & Biswas, 2017).

In a very basic sense, water is not only a resource by itself for daily human consumption like drinking or cooking, but also forms a major part of other resources like food and energy, both key components of a robust economy. Water is also an important component of a nation's health security, industrial growth, environmental and ecological balance. By some accounts the

freshwater availability is likely to decrease by 30% over the next 30 years. This will not only affect the availability for daily consumption but also adversely affect the food market, where nations that are self-sufficient could enter the international food market as importers, thereby affecting economic development and movement of people. Yet, policy debates today rarely consider water as a resources and water as a component of other resources in the larger security debate, unless there is a direct threat to domestic security. This is the only time water scarcity, and subsequently its security, achieves the political attention it deserves.

Take for example food security. With an increase in population the demand for food grains is likely to go up by 100 million tonnes by the middle of the century, in turn placing greater demand on the water resources either within a country or other food producing countries (Aleem, 2015). Nations that are self-sufficient or exporters could become net importers of grains conversely affecting their economic standing and balance, potentially giving rise to a host of other security concerns, including migration. During the 2008 food crisis, the price of staples jumped to their highest levels in decades, rising again in 2010 and 2011, as found by the UN Food and Agriculture Organisation. Add to this the changes in climate, shifting crop patterns, increased floods and droughts, thus making food scarcity inextricably linked to water scarcity (UNFAO, n.d.).

The demand for virtual water is also likely to increase, thus placing greater stress on the land, population and resources of countries that produce the goods the world demands. Developing nations, many of which are already water stressed, for example in South Asia and East Africa, will bear the brunt of being high exporters of virtual water. India is one of the major exporters of water through export of grains for example, something the country can ill afford given the water stress faced in several basins around the country. In 2014-2015 India exported, through the export of *basmati* rice, over 10 trillion litres of water (Kishore, 2016). During the same time, several districts in the central part of the country faced decreased rain and drought, leading to farmer suicide, migration towards the cities and rise in prices of basic goods and services. This begs the need for stronger linkages between discussion on food and water

security within the nation. Without effective policy measures that ensure efficient water use in the agricultural and manufacturing sector, rampant industrialisation will adversely affect water security of the country. Globally agriculture accounts for about 70 percent of freshwater withdrawals and as countries export crops, they in a sense also export water. For an environmentally sustainable future, India, and in fact all nations, need to value its natural resources to better inform policy, however utopian that might seem.

Floods now cause more damage globally than any other form of natural disaster. A 2015 report by United Nations Office for Disaster Risk Reduction stated that between 1995 and 2015, 157,000 people died and another 2.3 billion people were affected by floods, where maximum losses were in China and India, also home to highest population (UNISDR, 2015). The current global average annual flood loss is estimated at $104 billion though this is likely to be conservative and does not include disruptions to the global supply chain. During the same time period, East Africa alone faced 77 droughts, causing, amongst other calamities, high scale migration and stress on resources in capitals and other cities. Closer home, Mumbai has seen nine major flood events since 2000 and the severe drought in Chennai brought the city to the brink in 2019 with industry coming to a standstill and losses running into the millions.

Disasters and conflict, such as floods, drought, glacial melt, rise in sea level, and other related to changes in the climate compromise everything from physical infrastructure needed to access water, hygiene services, dams, irrigation channels (Vishwanath, 2019). Climate change itself is still considered a wild card, unpredictable and uncertain, affecting ecosystems and jeopardising water resources in manners that haven't even been thought of. As seen, they also impinge directly or indirectly on arable land, industrial development, resources needed to manage the infrastructure, governance systems, political and social capital and at the very basis, the population itself.

Floods, drought, failed crops, poor rains, drying up of rivers, and other related challenges affect the morale of a population, especially if daily life is adversely affected. From 2006-2010 Syria

faced a severe drought, one that had swept across several countries in the Levant region. This triggered shortage in food, rising prices, and increased migration to cities where many couldn't find work. The present situation in Syria isn't about water, but rather about ideology, economics and ethnic tension. However, the role that water scarcity played in complicating and exacerbating the challenges cannot be ignored.

Water and security are inextricably linked and it is time to place water at the forefront of all security debates and discussions. There needs to be a more consistent and coherent public information campaign to generate awareness about the water-security nexus at the community level, along with stronger policies at the government level. The challenge of water security should also be integrated into broader narratives and place the issue not only within the ambit of the development community but also within the prevue of global policy makers and decision makers. Water is not only about food and economic growth or the health of a population but also about peace and security of a country, both within the country and with her neighbours. Increasingly, water has become a threat to nations, not only through natural disasters or changes in the climate, but through its use as a weapon against enemies and as a tool by governments and non-state actors as a negotiating tactic. This not only increases the risks in such a situation, it has a spill over affect that cannot be predicted or measured to any degree of certainty.

4. New and Emerging Threats

The use of water as a threat and a weapon is no more apparent than in a war torn or conflict ridden zone. As of 2017 only 15 percent of Syrians had direct access to safe clean water, likely only in the larger towns and cities. Water in conflict zones of Syria and Iraq especially have been used as a weapon by both the governments and by terrorist organisations and non-state actors over the last several years. In Syria in 2016 alone there were 30 known deliberate water cuts in cities, some allegedly by government forces to cut off supply to the Islamic State. The Islamic State has pursued a strategy of controlling major water and oil resources in the region, on the one hand creating terror and panic

amongst ordinary civilians but on the other hand also forcing the government to attack water installations, dams and irrigations projects in order to combat and weaken them, the attacks that the government had unhesitatingly undertaken in the larger security interest. Conversely, the Islamic State have also provided, in areas controlled by them, excellent water and sanitation services to gather more supporters and sympathisers. The control of water has also given the IS greater access to other resources; for example, control over the Mosul Dam gave them control over 75 percent of the electricity generation in Iraq. Though the situation has subsequently changed, with the terrorist organisation considerably weakened, elections and a somewhat improved security assessment, the threats remain, especially with the renewed conflict between the Turkish forces and Kurdish regions, all the while most affecting the population of the region.

In Sudan, violence broke out in March 2012 at the Jamam refugee camp, where large number of people faced serious water scarcity due to poor infrastructure coupled with drought. Jordan currently has an estimated 1.2 million refugees, in a country that has one of the lowest per capita water availability in the world and is already severely water stressed. In India, the growing tension between Karnataka and Tamil Nadu over the Cauvery River has caused death and injuries to hundreds of people and loss of property, which is only likely to increase in the future if a sustainable solution is not found. The issues have been deeply politicised and taken on a new dimension of history and identity, making it more difficult to find and implement a joint resolution. In all such cases, the debate takes on a security dimension, with the water angle sometimes getting lost in the solutions. Such solutions are not sustainable in the long term, if the core question of water security within a community, nation or region is not adequately addressed.

The use of water as a weapon or a threat against populations is not new. During the Iran-Iraq war in the 1980s and again in the 1990s, Saddam Hussein drained the Mesopotamian Marshes as retribution against the Shiite community that hid there and as a warning to the tribal communities that protected them. Thus conflict reduces water security and can have a cascading effect with human, social and political consequences.

Migration and an influx of refugees in one such consequence, and can place indeterminable stress on the economies of host nations, as well as on the moral of the human population. There are currently over 25.9 million refugees and displaced people under the UNHCR mandate, with over 7.5 million hosted by Turkey, Pakistan, Sudan and Uganda, countries which can ill afford to place further stress on their resources (UNHCR, n.d.). Inequitable and difficult access to water and sanitation will exacerbate underlying social tensions, bringing them to the forefront, thus increasing the risk to security of a nation or a larger region, fostering a vicious cycle. The influx of refugees into Europe over the last few years has resulted in a fundamental change in ideology in the continent, bringing to the fore parties and groups that have taken a hard line against the core concepts of the European Union itself.

Empires have been founded along water bodies, from the ancient city of Ur to the Indus Valley civilisation. At the core of human advancement and development has been water, where countries today are using the same resource as a tool and negotiating tactic when dealing with neighbours. The struggle for power and economic success is turning water into a tool at the hands of governments, thereby escalating tensions. Egypt, a downstream riparian of the Nile River, claims a bulk of the water and has threatened Ethiopia with reprisals for continued construction on the Renaissance Dam, and while discussions are on between the two countries the threat of conflict looms over the region. The relationship between India and Pakistan, tumultuous at best, reaches dangerous levels of tension when the question of the shared rivers come into play, with Pakistan frequently accusing India of withholding their rightful water. It brings into question the feasibility of building lasting cooperation between these two waring neighbours, thus stunting the development and growth of populations that lie around the border regions and shared water resources. The problem isn't restricted to developing nations, as we have seen in the water related violence and tensions in the United States, Australia, and Israel.

Water and human security are inextricably linked and water needs to be treated with the same level of urgency as the refugee crisis of food crisis. The political leadership of today and global governance

systems need to place water squarely in the middle of the peace and security nexus. Farinosi et al. (2018) opine, "although water issues alone have not been the sole trigger for warfare in the past, tensions over freshwater management and use represent one of the main concerns in political relations…"

Solutions cannot be piecemeal or always internal, just as water knows no boundaries, solutions also need to transcend borders. Water used a weapon of war, as a tool in the hands of non-state actors and terrorist and by governments is a strong argument to the UN and the International community to place water in the space of a human rights argument. 2018-2028 has been declared as the International Decade for Water. It is a chance to de-politicise the argument of water and conceptualise it in terms of peace, bringing all actors to the table.

5. What's Next?

Peter Gleick states that "The lesson is don't let water be the problem. Smart countries, smart leaders, will try to take water out of the equation [of instability] by doing the things that we know work" (Fishman, 2015). Avoiding conflict over water demands international cooperation. There is still no international water law in force, and most regional water agreements are ineffective, lack monitoring and enforcement rules and provisions formally dividing water among users on an equal or equitable basis. The few successful agreements provide excellent case studies for regions and nations that have not yet been able to agree on forms of cooperation, from the Rhine River Commission to the Lower Mekong Agreement or the Senegal River Basin Commission. Countries here have placed water at the core of the argument, with a sense of foresight that is commendable.

The international community confronts a problem that is more pressing that terrorism, cyber security or even the economic slowdown. It is time to move beyond the unilateralism that has prevailed for decades and bring in a sense of urgency to inspire policymakers, businessmen, the corporate world, practitioners and even the end consumers. The end consumers especially cannot and must not be excluded from the discussion, for often it is they that

have the best understanding of the problems and potential solutions.

As the Cauvery Issue or the challenges surrounding the Indus River indicate, water problems don't get solved because they often aren't really about water. They are about politics and economics, culture and ideology, and even religion. Thus, there needs to be a greater understanding of the role of water in larger security debates and the non-traditional security challenges that are engulfing us today and likely to emerge in the future. The role of water cannot be ignored and any solution to secure a nation, from a food, health or even traditional defence perspective needs to have this key resource as part of the discussion. Leaders that ignore this will do so at their own peril and to the irreversible detriment of the security of their nations and people.

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